REMARKS/ARGUMENTS

Claims 1-7 and 12-16 are pending. The specification has been revised to refer to the international filing and to the priority application. Minor editorial changes have been made to the claims to improve their clarity. Accordingly, the Applicants do not believe that any new matter has been added. Favorable consideration of this amendment is now respectfully requested.

The Applicants thank Examiner Fubara for the courteous and helpful discussion of November 19, 2003. The Applicants were encouraged to further clarify the claim language. Possible ways to address the rejection over Pardini et al., EP 0 204 312 were discussed. To further distinguish the claimed processes from Pardini et al., the Applicants now point out that Pardini is directed to a process involving protonated amines. Accordingly, favorable consideration is now respectfully requested.

Priority

As requested, page 1 of the specification has been revised to refer to the international application.

Rejection—35 U.S.C.§112, second paragraph

Claim 16 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite. This rejection is moot in view of the amendment of this claim.

Rejection—35 U.S.C.§102(b)

Claims 1, 3-5 and 12-16 were rejected under 35 U.S.C. 102(b) as being anticipated by Pardini et al., EP 0 204 312. The Applicants submit that Pardini does not anticipate the present invention for the following reasons:

Pardini (EP 0 204 312) is directed to a process using amines in their protonated form, see e.g., "Summary of the Invention", page 2, lines 39-42, especially line 42. Pardini reveals that the antimicrobial activity is imported to acrylic polymers by copolymerization of an acrylic protonated amine comonomer. Pardini discloses antimicrobial polymers prepared by a process where the process comprises polymerizing acrylonitrile, ethylenically unsaturated monomer and protonated amine (for example, protonated tert-butylaminoethylmethacrylate). While DMAM and DEAM are monomers with tertiary amino groups, this overlooks the fact that according to Pardini, the amines are used in their protonated form.

Pardini shows the production process of the antimicrobial polymers. According to page 3, lines 25-26, the amine monomer was added to a reactor and subsequently sulfuric acid (protonation) was added. Thus, the amine monomer is converted into the corresponding ammonium salt. It is without doubt that Pardini exclusively discloses antimicrobial polymers comprising protonated amines, i.e., the ammonium salts of the corresponding amine.

In contrast to Pardini, the present invention discloses antimicrobial polymers comprising monomers with tertiary amino groups--not the ammonium salts of tertiary amino groups. A step of treating the amino functionalized monomer with an acid - an essential step of Pardini - is not disclosed in the present invention. Thus, the process of the present invention is totally different to that of Pardini. In addition, amino functionalized substances are chemically distinct from ammonium salts.

Moreover, the examples in the specification confirm the above by showing that amino functionalized polymers possess antimicrobial properties even though the amino groups are not converted into ammonium groups. In contrast to these examples, Pardini reveals that a protonated amine is essential for the antimicrobial properties of the polymers.

Accordingly, the Applicants submit that Pardini neither discloses nor suggests the present invention and respectfully request that this rejection now be withdrawn.

Rejection—35 U.S.C.§103

Claims 6 and 7 were rejected under 35 U.S.C. 103(a) as being unpatentable over Pardini et al., EP 0 204 312. The Applicants submit that this rejection may be withdrawn for the reasons set forth above.

Double Patenting

Claims 1, 2, 5-7 and 12-15 were rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-3, 7-11 and 14-16 of U.S. Patent No. 5,967,714. The Applicants respectfully request that their response to this rejection be deferred until the identification of otherwise allowable subject matter.

Double Patenting

Claims 1, 2, 5-7 and 12-15 were rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-7 of U.S. Patent No. 6,096,800. The Applicants respectfully request that their response to this rejection be deferred until the identification of otherwise allowable subject matter.

CONCLUSION

In view of the above amendments and remarks, the Applicants respectfully submit that this application is otherwise in condition for allowance. Early notification to that effect is earnestly solicited.

Respectfully submitted,

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